



June 6, 2014

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Return Receipt Requested

U.S. Environmental Protection Agency, Region 7
Attn: Chief, RCRA Corrective Action & Permits Branch
Air, RCRA, and Toxics Division
11201 Renner Blvd
Lenexa, Kansas 66219

JUN 0 9 2014
AWMD/WRAP-KNRP

Dear Sir/Madam:

Re:

Class I Permit Modification

Additional Solid Waste Management Unit (SWMU)

Occidental Chemical Corporation, 6200 S. Ridge Road, Wichita, Kansas

RCRA ID #KSD007482029

Pursuant to the requirements set out by Part II of the Occidental Chemical Company Wichita Facility's Hazardous and Solid Waste Amendments Permit (RCRA ID# KSD007482029) (Permit) and the Resource Conservation and Recovery Act (RCRA), this letter provides notice of a Class I Permit Modification to the United States Environmental Protection Agency (U.S. EPA), which includes the addition of a SWMU in the Permit. The additional SWMU was identified during completion of investigative and file review work as summarized in the Phase II On-Site Groundwater Investigation RCRA Facility Investigation (RFI) Summary Report (CRA February 2014). It was determined that the newly identified unit be characterized as a SWMU based on the definitions provided in the Facility's Permit and the characterization of similar units at this Facility.

Based on the requirements set forth in Section C.3 Paragraph (a) of Part II of the Facility's RCRA Permit, the notification requirement for the addition of a newly identified SWMU includes the submission of an updated Table F-1 and Figure F-1. The updated Table F-1 and Figure F-1 are attached to this letter.

In addition, pursuant to assessment requirements discussed within paragraphs b through e of Section C.3 of Part II of the Permit, investigation and historical documentation of the newly identified SWMU has been incorporated as a part of the ongoing RFI.

RCRA

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The newly identified SWMU is summarized as follows:

<u>Former Northwest Hex Waste Quench Pit</u> located within the Chloromethanes II Area. SWMU identification was based on the review of aerial photographs, and soil boring data results in this area which are consistent with the overall concentrations and compositions of former hex waste pits at the Site. The estimated extent of this new SWMU is provided on Figure F-1.

The additional SWMU details (included in the revised Table F-1) are provided in the following:

SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed
Former Northwest	Chloromethanes	1960-1970s	Approximately 150' by 100' in	Hex waste material from PCE production.
Hex Waste Quench	11		size (elliptical)	
Pit				

Please do not hesitate to contact me or Juan Somoano (Glenn Springs Holdings, Inc.) if you have any questions or need further information.

Yours truly,

Steve Hieger

Plant Manager

OCCIDENTAL CHEMICAL CORPORATION

Steven R Hieger

SH/lg/4

cc:

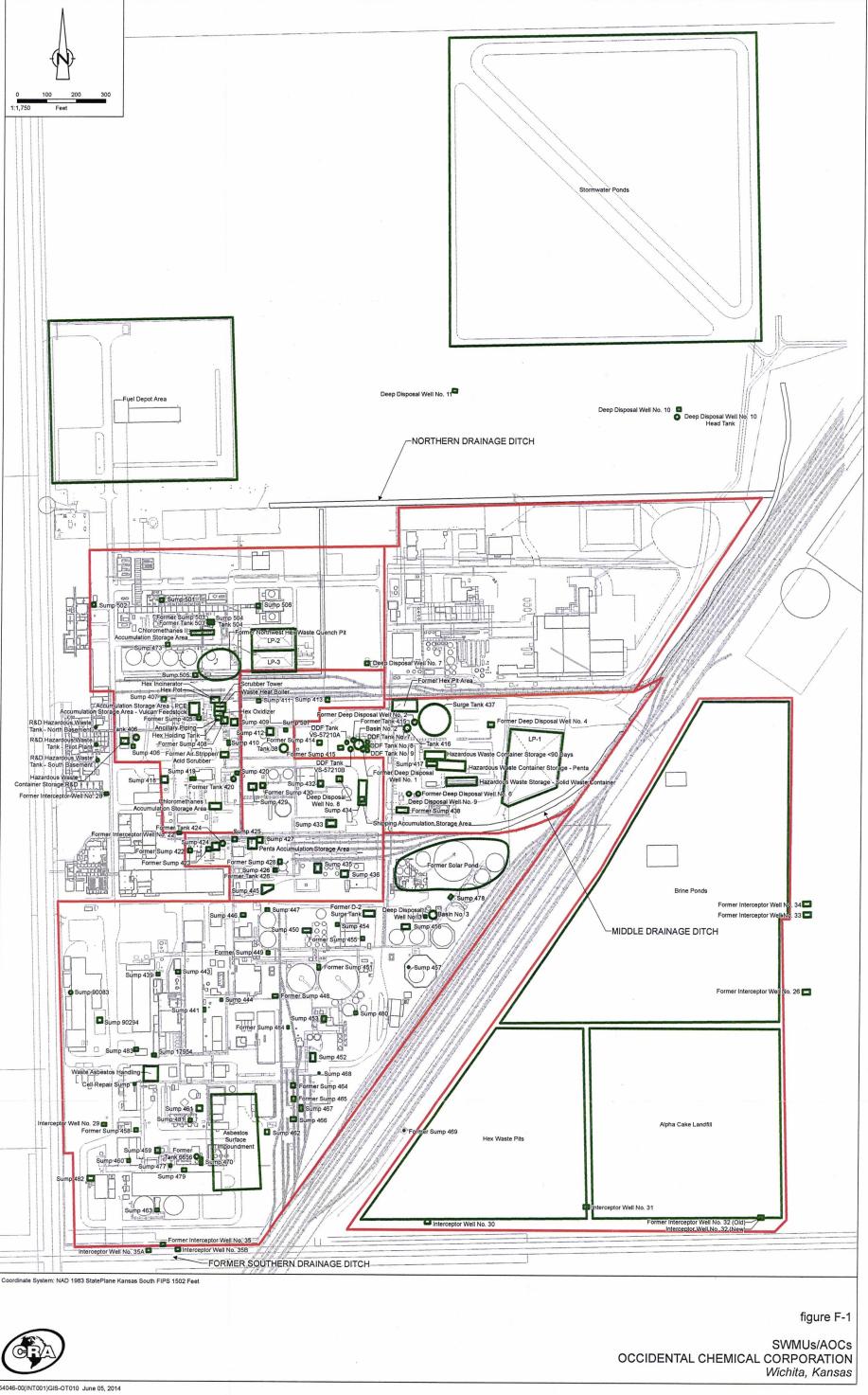
Bradley Roberts (U.S. EPA) Mostafa Kamal (KDHE) Lisa Thurman (OCC) Juan Somoano (GSHI)

Bruce Clegg (CRA)

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AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Abandoned Piping (underground)	Site-Wide	1957-1977		Manufactured product and inorganic wastewater lines.	Some piping left in place.
Accumulation Storage Area - PCE	PCE	1976-1997	Approximately 400 square feet.  Concrete pad with concrete curbing.	Hex and organic contaminated wastes.	Temporary storage of wastes. Replaced by VFS.
Accumulation Storage Area - Shipping	Penta - BHC	1976-Current	Approximately 100 square feet. Concrete pad with concrete curbing.	Organic and inorganic impacted wastes.	Temporary storage of wastes.
Accumulation Storage Area - Vulcan Feedstock (VFS)	PCE	1996-2003	Approximately 400 square feet. Concrete pad with concrete curbing.	Organic contaminated wastes.	Temporary storage of wastes.
All Railroad Tracks in Process Areas and RR Corridor North to South		1990's-Current		All past and present products and wastes.	
Alpha Cake Landfill	Chemical Waste Landfill	1951-1977	Approximately 20 acres. Clay cap (part of chemical landfill).	BHC material, chlorinated organics, pentachlorophenol and hex wastes.	Stopped accepting waste in 1976. Covered in 1977 with compacted clay cap.
Asbestos Surface Impoundment	Inorganic	1951-1977	35'x42'	Asbestos	Stopped accepting waste in 1977. Area was closed and capped with concrete.
Basin No. 2	PCE	1977 to Current	25'x13'. Approximately 177,000 gallons/corrosion resistant brick.	Wastewater impacted with chlorinated organics.	Interior was recoated with chemical resistant coating.
Basin No. 3	Inorganic	1977 to Current	Approximately 45,000 gallons (25' diameter and 12' deep)/corrosion resistant brick.	Inorganic wastewater.	C
Brine Ponds	Inorganic	1957-1977	Approximately 20 acres. Clay cap.	Inorganic wastes from Solar Pond and brine sludge.	Currently received construction debris (non-hazardous).
Cell Repair Sump	Inorganic	1977-Current	Approximately 2,250 gallons (4.6'x8.6'x7.6')	Non-hazardous process water and stormwater runoff from inorganic.	
Chloromethanes I Accumulation Storage Area	Chloromethanes I	1976-1992	Approximately 400 square feet. Concrete pad with concrete curbing.	Organic contaminated wastes.	Temporary storage of wastes.
Chloromethanes II Accumulation Storage Area	Chloromethanes II	1976-Current	Approximately 400 square feet. Concrete pad with concrete curbing.	Organic contaminated wastes.	Temporary storage of wastes.
DDF Tank No. 7	PCE	1977-Current	25,000 gallons	Organic process water.	<90 Day Storage/Holding Tank. Associated with Basin No. 2, discharges to Deep Disposal Well No. 7.

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
DDF Tank No. 8	PCE	1977-Current	1,400 gallons	Organic process water.	<90 Day Storage/Holding Tank. Associated with Basin No. 2, discharges to Deep Disposal Well No. 8.
DDF Tank No. 9	PCE	1977-Current	1,400 gallons	Organic process water.	<90 Day Storage/Holding Tank. Associated with Basin No. 2, discharges to Deep Disposal Well No. 9.
DDF Tank VS-57210A	PCE	2012-Not in operation	15,230 gallons	Organic and inorganic impacted wastewater	<90 Day Storage/Holding Tank. Associated with Basin No. 2, discharges to Deep Disposal Well No. 10 or 11.
DDF Tank VS-57210B	PCE	2012-Not in operation	15,230 gallons	Organic and inorganic impacted wastewater	<90 Day Storage/Holding Tank. Associated with Basin No. 2, discharges to Deep Disposal Well No. 10 or 11.
Deep Disposal Well No. 3	Inorganic	1966-Current		Inorganic impacted wastewater.	
Deep Disposal Well No. 7	Located near Atofina (former) Plant.	1977-Current	NA	Organic and inorganic impacted wastewater.	
Deep Disposal Well No. 8	Chloromethanes I	1980-Current	NA	Organic and inorganic impacted wastewater.	C
Deep Disposal Well No. 9	Hazardous Waste Storage	1982-Current	NA	Organic and inorganic impacted wastewater.	
Deep Disposal Well No. 10	NA	2001-Current	NA	Non hazardous waste only.	
Deep Disposal Well No. 10 Headtank	NA	2012	9,960 gallons	Organic and inorganic impacted wastewater.	Head tank at DW #10, discharges to deep well #10
Deep Disposal Well No. 11	NA	2012	NA	Non hazardous waste only.	
Drainage Ditch - Middle	Surface Water Drainage	1958-1977		Organic and BHC impacted stormwater and process wastewater.	In 1977, process area surface water discharge was eliminated.
Drainage Ditch - North	Surface Water Drainage	1958-1977	,	Organic impacted stormwater and process wastewater.	In 1977, process area surface water discharge was eliminated.

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Drainage Ditch - South	Surface Water	1958-1977		Stormwater and inorganic process	In 1977, inorganic process surface
	Drainage			wastewater.	water discharge was eliminated.
Former Air Stripper/Acid Scrubber	PCE	1976-1993		Hydrochloric acid fumes.	75-
Former D-2 Surge Tank	Inorganic	1977-1989	< 2,000 gallons	Brine sludge.	< 90 day storage/holding tank.
Former Deep Disposal Well No. 1	PCE	1957-1961	NA	Organic and inorganic impacted wastewater.	Tank removed from facility.  Well was plugged/abandoned April 1961.
Former Deep Disposal Well No. 2	Hazardous Waste Storage	1961-1973	NA	Organic and inorganic impacted wastewater.	Well was plugged/abandoned January 1973.
Former Deep Disposal Well No. 4	Hazardous Waste Storage	1975-2008	NA	Inorganic impacted wastewater.	3411441 4 2573.
Former Deep Disposal Well No. 6	Hazardous Waste Storage	1974-1982	NA	Organic and inorganic impacted wastewater.	Well was plugged/abandoned in 1982.
Former Hex Pit Area	Hazardous Waste Storage	1960-1970		Hex material from PCE production.	Temporary storage prior to transfer to landfill.
Former Interceptor Well No. 22	Groundwater	1976-1993		Groundwater from remediation system.	
Former Interceptor Well No. 26	Groundwater	1977-Unknown		Groundwater from remediation system.	
Former Interceptor Well No.	Groundwater	1977-Unknown		Groundwater from remediation system.	<u></u>
Former Interceptor Well No. 32 (old)	Groundwater	1977-1995		Groundwater from remediation system.	Well plugged in 1995.
Former Interceptor Well No. 33	Groundwater	1977-2003		Groundwater from remediation system.	Plugged. Abandoned.
Former Interceptor Well No. 34	Groundwater	1977-2003		Groundwater from remediation system.	Plugged. Abandoned.
Former Interceptor Well No. 35	Groundwater	1983-1991		Groundwater from remediation system.	Plugged. Abandoned.
Former Northwest Hex Waste Quench Pit	Chloromethanes II	1960-1970s	Approximately 150' by 100' in Size (elliptical)	Hex waste material from PCE production.	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Former Solar Pond	Inorganic	1951-1971	1.4 acres	Brine sludge and inorganic wastewater. May have received wastewater contaminated with organics from Middle Drainage Ditch.	Removed from service in 1971 and closed in 1977.
Former Sump 405	PCE	1977-Unknown	ş.	Organic process water and stormwater runoff only.	
Former Sump 408	PCE	1977-1997	Approximately 360 gallons (4'x4'x3')	Organic process water and stormwater runoff only.	backfilled and cemented.
Former Sump 414	Solvent Drum Storage	1977-1995	2'x2'xUnknown	All solvents manufactured at Facility, stormwater	Backfilled with gravel.
Former Sump 415	PCE	1977-1998	Approximately 3,350 gallons (8'x8'x7')	Organic process water and stormwater runoff only.	Cleaned, filled with gravel and taken out of service in 1998.
Former Sump 422	Penta-BHC	1977-Unknown	Approximately 60 gallons (2'x2'x2')	Washwaters, oils, penta building spills.	Backfilled and cemented.
Former Sump 423	Penta-BHC	1977-Unknown	Approximately 210 gallons (2.6'x3.6'x3')	Solvents, oils, CT water, chlorine, HCl, phenol, H <sub>2</sub> SO <sub>4</sub> , chlorophenols, ZnCl <sub>2</sub> , MeOH	Backfilled and cemented.
Former Sump 428	Penta-BHC	1977-Unknown	Approximately 1,345 gallons (6'x6'x5')	Organic process water and stormwater runoff.	Backfilled and cemented.
Former Sump 430	Chloromethanes II	1977-Unknown	Approximately 4,490 gallons (10'x10'x6')	Organic process water and stormwater runoff.	Backfilled and cemented.
Former Sump 438	Penta - BHC	1977-Unknown	Approximately 89,275 gallons (51'x18'x13')		Backfilled and cemented.
Former Sump 448	Inorganic	1977-Unknown	Approx. 6,390 gallons (8' x 12' x 8.9')	Inorganic wastewaters from caustic fusion unit and caustic warehouse dock.	Backfilled and cemented.
Former Sump 449	Inorganic	1977-Unknown	Approx. 175 gallons (2.6' x 3' x 3')	Inorganic wastewaters from pump seals (50% caustic).	
Former Sump 451	Inorganic	1977-Unknown	Approximately 5,835 gallons (10'x13'x6')	Inorganic wastewaters from brine treatment equipment.	
Former Sump 455	Inorganic	1977-Unknown	Approximately 3,230 gallons (9'x8'x6')	Inorganic wastewaters from blowdown or drainage from cells during maint.	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Former Sump 458	Inorganic	1977-Unknown	Approximately 1,615 gallons (6'x6'x6')	Condensate from ammonia plant process equipment.	
Former Sump 464	Inorganic	1977-Unknown	Approximately 26,930 gallons (60'x10'x6')	Inorganic wastewaters from loading area.	
Former Sump 465	Inorganic	1977-Unknown	Approximately 26,930 gallons (60'x10'x6')	Inorganic wastewaters from loading area.	
Former Sump 469	Chemical Waste Landfill	1976-2000	Approximately 135 gallons (3'x3'x2')	Organic process water and stormwater runoff.	Backfilled with soil and grass covered.
Former Sump 484	Inorganic	1977-Unknown		Non-hazardous process water and stormwater runoff from inorganic.	Backfilled and cemented.
Former Sump 503	Chloromethanes II	1977-1999	Approximately 1,275 gallons (7.6'x5.6'x4')	Prior to 1999: Process wastewater. Post 1999: Secondary containment and direct rainfall only.	Secondary containment for <90 day hazardous waste tank.
Former Tank 415	PCE	1977-1999	<500 gallons	Organic process water and stormwater runoff.	Considered non hazardous and disposed of at Brooks Landfill in 1999.
Former Tank 420	Penta - BHC	1977-1999	<500 gallons	Organic process water and stormwater runoff.	Cleaned and disposed at Brooks Landfill in 1999.
Former Tank 424	Penta - BHC	1977-2005 1999-Current	<500 gallons	Organic process water and stormwater runoff.	<90 Day Storage Tank. Original tank decommissioned in 1999; replacement decommissioned in 2005.
Former Tank 426	Penta - BHC	1977-1998	<500 gallons	Organic process water and stormwater runoff.	Decommissioned in 1998.
Former Tank 503	Chloromethanes II	1977-1999	<500 gallons	Organic process water and stormwater runoff	Cleaned and disposed at Brooks Landfill in 1999.
Former Tank 6656	Inorganic	1983-2001		Non hazardous process wastewater and non process stormwater runoff from inorganic.	Disposed off-Site.
Fuel Depot Area		1990's-Current		TPH-DRO and TPH-GRO	
Hazardous Waste Storage - Solid Waste Container	Hazardous Waste Storage	1977-Current	Approximately 1,800 square feet (60'x30'). Concrete pad with curbing.	Solid hazardous waste storage containers (no liquids).	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Hazardous Waste Container	Hazardous Waste	1977-Current	Approximately 20,000 square feet	Penta contaminated waste storage	Will be closed once plant is
Storage - Penta	Storage		(238'x83'). Concrete pad with curbing.	containers.	completely demolished.
Hazardous Waste Container	Research and	1977-Current	Approximately 100 square feet	Hazardous waste from R&D	
Storage - R&D	Development		(10'x10'). Concrete pad with curbing.	Laboratory.	
Hazardous Waste Container	Hazardous Waste	1977-Current	Approximately 1,200 square feet	Liquid hazardous waste storage	
Storage <90 Day Storage	Storage	,	(60'x20'). Concrete pad with curbing.	containers.	
Hex Incinerator	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Ancillary Piping	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Hex Holding Tank	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Hex Oxidizer	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Hex Pot	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Scrubber Tower	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Waste Heat Boiler	PCE	1977-1997		Hex material from PCE production.	Closed 1997.
Hex Waste Pits	Chemical Waste Landfill	1958-1977	Approximately 20 acres (part of chemical landfill. Clay cap.	Hex material from PCE production.	Stopped accepting waste in 1976. Covered in 1977 with compacted clay cap.
Interceptor Well No. 29	Groundwater	1991-Current		Groundwater from remediation system.	ciay cap.
Interceptor Well No. 30	Groundwater	1986-Current		Groundwater from remediation system.	
Interceptor Well No. 31	Groundwater	1978-Current		Groundwater from remediation system.	
Interceptor Well No. 32 (new)	Groundwater	1995-Current		Groundwater from remediation system.	
Interceptor Well No. 35A	Groundwater	1990-Current		Groundwater from remediation system.	
Interceptor Well No. 35B	Groundwater	1996-Current		Groundwater from remediation system.	
LP-1	Hazardous Waste Storage	1958-1984 1984-Current	3.3 million gallons		Closed in 1984. Reactivated to collect stormwater runoff from process areas.

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
LP-2	Chloromethanes II	1978-1984	95,000 gallons (0.24 acres)	Contaminated soil was remediated;	Closed and relined (Hypalon
		1984-Current		currently receives stormwater from	Plastic) in 1984. Reactivated in
				process area and also cooling tower	1984 as a non hazardous storage
				blow down.	unit.
LP-3	Chloromethanes II	1958-1984	80,000 gallons	Receives only non hazardous	Closed and relined (Hypalon
		1984-Current		stormwater runoff only.	Plastic) in 1984. Reactivated to
					collect stormwater runoff from non
					process areas.
Penta Accumulation Storage	Penta - BHC	1976-Current	Approximately 400 square feet.	Pentachlorophenol contaminated	Temporary storage of wastes. Will
Area			Concrete pad with concrete curbing.	wastes.	be closed once plant is completely
					demolished.
R&D Hazardous Waste Tank -	Research and	1977-Current	<500 gallons	R&D laboratory wastewater.	<90 Day Storage/Holding Tank
North Basement	Development				
R&D Hazardous Waste Tank -	Research and	1977-Current	<500 gallons	Pilot Plant process wastewater.	<90 Day Storage/Holding Tank
Pilot Plant	Development				
R&D Hazardous Waste Tank -	Research and	1977-Current	<500 gallons	R&D laboratory wastewater.	<90 Day Storage/Holding Tank
South Basement	Development				
Stormwater Ponds	Surface Water	1977-Current	45,000,000 gallons	Non process stormwater runoff only.	
,	Drainage				
Sump 17954	Inorganic	Unknown-	Approximately 630 gallons	Condensate from chlorine plant and	
	-	Current	(5.75'x3.25x4.5')	stormwater runoff.	
Sump 406	Research and	1977-Current	Approximately 8,150 gallons (11' x 11' x	Organic process water and	
	Development		9')	stormwater runoff only.	
Sump 407	PCE	1977-Current	Approximately 2,200 gallons (7'x7'x6')	Organic process water and	
				stormwater runoff only.	
Sump 409	PCE	1977-Current	Approximately 46,900 gallons	Organic process water and	
			(19'x30'x11')	stormwater runoff only.	
Sump 410	PCE	1977-Current	Approximately 3,890 gallons (5'x13'x8')	Organic process water and	
				stormwater runoff only.	
Sump 411	PCE	1977-Current	Approximately 1,080 gallons (6' x 6' x	All solvents manufactured at Facility,	
			4')	carbon disulfide, stormwater.	
Sump 412	PCE	1977-Current	Approximately 10,100 gallons (15' x 15'	Solvents, carbon disulfide, grain	
			x 6')	fumigants, stormwater.	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Sump 413	PCE	1977-Current	Approximately 3,450 gallons (8' x 8' x 7.2')	All solvents manufactured at Facility, stormwater.	
Sump 417	Hazardous Waste Storage	1975-1985 1985-Current	Approximately 36,700 gallons (44.6'x11'x10')	Previously used for Hex waste clean out; currently used as secondary containment.	-
Sump 418	Chloromethanes I	1977-Current	Approximately 29,690 gallons (21'x22'x8')	Organic process water and stormwater runoff.	
Sump 419	Chloromethanes I	1977-Current	Approximately 335 gallons (5'x3'x3')	Organic process water and stormwater runoff.	
Sump 420	Chloromethanes I	1977-Current	Approximately 750 gallons (5'x5'x4')	Organic process water and stormwater runoff.	Taken out of hazardous waste service in 1998. Reactivated as non hazardous.
Sump 424	Penta-BHC	1977-Current	Approximately 18,480 gallons (13' x 20' x 9.5')	Phenol, HCl storage tanks, sump 423 contents.	
Sump 425	Penta-BHC	1977-Current	Approximately 570 gallons (4' x 6' x 3.2')	phenols, process leaks, HCl.	
Sump 426	Penta-BHC	1977-Current	Approximately 1,210 gallons (6' x 6' x 4.5')	phenol compounds, maintenance wastewater.	
Sump 427	Penta-BHC	1977-Current	Approximately 9,170 gallons (15.5' x 8.5' x 9.3')	NaOH and penta storage area, loading wastes (caustic and acids).	
Sump 429	Chloromethanes II	1977-Current	Approximately 31,510 gallons (18'x18'x13')	$CH_2Cl_2$ , $CHCl_3$ , mixed organics, $CaCl_2$ and $NaOH$ from solvent traps.	
Sump 432	Chloromethanes II	1977-Current	Approximately 6,680 gallons (10' x 10.5' x 8.5')	Cooling tower blowdown, treatment chemicals.	
Sump 433	Chloromethanes II	1977-Current	Approximately 25,525 gallons (13' x 25' x 10.5')	HCI, CH <sub>2</sub> Cl <sub>2</sub> , ethylene dichloride, propylene dichloride, Solvent III.	
Sump 434	Chloromethanes II	1977-Current	Approximately 1,540 gallons (5.5' x 7.5' x 5')	Solvents.	
Sump 435	Penta - BHC	1977-Current	Approximately 14,440 gallons (17' x 17.5' x 6.5')	HCl acid and H <sub>2</sub> SO <sub>4</sub>	
Sump 436	Penta - BHC	1977-Current	Approximately 13,460 gallons (12' x 25' x 6')	NaOH	Receives storm water runoff from caustic loading area.

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Sump 439	Penta - BHC	1977-Current	Approximately 3,815 gallons (6.6'x8.6'x9')	Inorganic Wastewaters from H-4 Cell Trench and Chlorine Liquifaction.	
Sump 441	Penta - BHC	1977-Current	Approximately 135 gallons (3'x3'x2')	Inorganic wastewaters from sulfuric acid containment.	
Sump 443	Penta - BHC	1977-Current	Approximately 120 gallons (2'x4'x2')	Inorganic wastewaters - containment for H <sub>2</sub> SO <sub>4</sub> tanks and hydrogen cell cond.	
Sump 444	Penta - BHC	1977-Current	Approximately 1,885 gallons (6'x6'x7')	Inorganic wastewaters from cell room, cell lines and Cl <sub>2</sub> liquefaction.	*
Sump 445	Penta - BHC	1977-Current	Approx. 48,800 gallons ((26' x 8') x 32' x 12')	Non-haz. process water and stormwater from inorg. (may be haz. due to pH).	
Sump 446	Penta - BHC	1977-Current	Approximately 1,290 gallons (8.6'x5'x4')	Inorganic wastewaters from caustic plant trench and boiler house.	
Sump 447	Inorganic	1977-Current	Approximately 1,615 gallons (6'x6'x6')	Inorganic wastewaters - containment for cell liquor tanks (NaOH).	
Sump 450	Inorganic	1977-Current	Approximately 25,470 gallons (16'x28'x7.6')	Inorganic wastewaters - containment for caustic plant.	
Sump 452	Inorganic	1977-Current	Approximately 14,660 gallons (14'x14'x10')	Inorganic wastewaters from Cl <sub>2</sub> building, tank cars, caustic bead bldg, other nearby sumps.	
Sump 453	Inorganic	1977-Current	Approximately 23,480 gallons (16'x18'x10.9')	Formerly overflow from Sump 451, currently wastewaters from brine treatment.	
Sump 454	Inorganic	1977-Current	Approximately 5,984 gallons (10'x10'x8')	Inorganic wastewaters from pump seals.	
Sump 456	Inorganic	1977-Current	Approximately 1,255 gallons (12'x2'x7')	Inorganic wastewaters from Cl <sub>2</sub> building, tank cars, caustic bead bldg, other nearby sumps.	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Sump 457	Inorganic	1977-Current	Approximately 1,615 gallons (6'x6'x6')	Inorganic wastewaters from C-17 tank/pump seals.	
Sump 459	Inorganic	1977-Current	Approximately 9,425 gallons (15'x12'x7')	Non-hazardous process water and stormwater runoff from inorganic.	
Sump 460	Inorganic	1977-Current	Approximately 1,415 gallons (10'x3'x6.3')	Inorganic wastewaters from blowdown.	
Sump 461	Inorganic	1977-Current	Approximately 17,810 gallons (16'x16'x9.3')	Inorganic wastewaters from pump seals and treatment equipment.	
Sump 462	Inorganic	1977-Current	Approximately 810 gallons (3'x9'x4')	Inorganic wastewaters from cylinder cleaning and valve repair.	
Sump 463	Inorganic	1977-Current	Approximately 225 gallons (5'x3'x2')	Inorganic wastewaters - containment area. Brine tanks formerly NH <sub>3.</sub>	
Sump 466	Inorganic	1977-Current	Approximately 26,930 gallons (60'x10'x6')	Inorganic wastewaters from loading area.	
Sump 467	Inorganic	1977-Current	Approximately 5,500 gallons (7'x21'x5')	Inorganic wastewaters from tank car servicing.	
Sump 468	Inorganic	1977-Current	Approximately 825 gallons (4.6'x8'x3')	Inorganic wastewaters from truck washing and truck and rail paint area.	
Sump 470	Inorganic	1977-Current	Approximately 5,970 gallons (15'x7.6'x7')	Inorganic wastewaters from containment area.	
Sump 473	Chloromethanes II	1977-Current	Approximately 390 gallons (3.6'x3.6'x4')		
Sump 477	Inorganic	1977-Current	Approximately 5,500 gallons (21'x5'x7')	Inorganic wastewaters from containment area.	
Sump 478	Inorganic	1977-Current	Approximately 5,235 gallons (10'x10'x7')	Inorganic wastewaters from containment area.	
Sump 479	Inorganic	1977-Current	Approximately 315 gallons (4'x4'x2.6')	Inorganic wastewaters from containment area.	
Sump 480	Inorganic	Unknown- Current	Approximately 480 gallons (4'x4'x4')	Containment area for brine treatment area and tanks.	

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Sump 481	Inorganic	1977-Current	Approximately 3,140 gallons (6'x10'x7')	Inorganic wastewaters from containment area.	Active
Sump 482	Inorganic (cogen plant)	Unknown- Current	Approximately 480 gallons (4'x4'x4')	Secondary containment for treatment chemicals and stormwater.	
Sump 483	Inorganic	Unknown- Current	Approximately 400 gallons (4.25'x4.25'x3')	Secondary containment for refrigerant system and stormwater.	
Sump 501	Chloromethanes II	1977-Current	Approximately 1,175 gallons (5.6'x5.6'x5')	Organic process water and stormwater runoff.	
Sump 502	Chloromethanes II	1977-Current	Approximately 1,345 gallons (6'x6'x5')	Non hazardous stormwater runoff from Quality Control Laboratory.	
Sump 504	Chloromethanes II	1977-Current	Approximately 6,335 gallons (11'x11'x7')	Organic process water and stormwater runoff.	Secondary containment for <90 day hazardous waste tank.
Sump 505	Chloromethanes II	1977-Current	Approximately 390 gallons (3.6'x3.6'x4')		
Sump 506	Chloromethanes II	1977-Current	Approximately 290 gallons (3.6'x3.6'x3')	Organic process water and stormwater runoff.	
Sump 507	Penta	Unknown- Current	Approximately 750 gallons (5'x5'x4')	Formerly filter press equipment for Penta Process; currently accepts stormwater.	
Sump 90083	Inorganic	Unknown- Current	Approximately 1,690 gallons (6'ID x 8")	Wastewater with trace amounts of NaOH.	
Sump 90294	Inorganic	Unknown- Current	Approximately 1,690 gallons (6'ID x 8")	Wastewater with trace amounts of HCI.	
Surge Tank 437	Hazardous Waste Storage	1977-Current	1,300,000 gallons (100'x24')	Non hazardous process wastewater and non process stormwater runoff from inorganic area.	<90 Day Storage/Holding Tank
Tank 38	PCE	1977-Current	91,000 gallons (30'x20')	Prior to 2000: Chlorinated organic contaminated wastewater and soil. Post 2000: Penta recovery.	<90 Day Storage/Holding Tank. Taken out of hazardous waste service in 2000.

#### TABLE F-1

AOC/SWMU Designation	Plant Area	SWMU Service Date	Size/Construction	Waste Managed	Comments
Tank 406	Research and Development	1977-Current	700 gallons	Process water from Pilot Plant and wastewater from laboratory sinks.	<90 Day Storage/Holding Tank
Tank 416	Hazardous Waste Storage	1977-Current	20,000 gallons	Non hazardous process wastewater and non process stormwater runoff from Inorganics Area.	<90 Day Storage/Holding Tank
Tank 504	Chloromethanes II	Unknown- Current	Approximately 250 gallons	Organic process water and stormwater runoff.	
Waste Asbestos Handling	Inorganic	1958-Current	Eastern portion of building	Asbestos from the regeneration of diaphragm and membrane.	